



Midwest Bridge Preservation Partnership

Agenda – Monthly Teleconference

Tuesday, January 3rd, 2023

Business Meeting: 12:30 pm – 1:00 pm Central

Technical Session 1:00 – 2:00 pm Central

12:30 pm – Business Meeting.

1. Election of At-Large Director.

Nominations – email with “voting poll” provided: [Voting Poll for MWBPP At Large Director 2023 \(office.com\)](#). .

Matthew Keilson

Bobby Scarpitto

Others?

Results tallied between 1230-2PM. Results: Matthew Keilson

2. MWBPP Annual Meeting 2023 South Dakota – Agenda Planning

a.) Next Monthly Meeting – Wednesday January 18th at 1 pm.

b.) Seeking input on presentations and/or theme for the meeting. **Topics and not the presentations.** Committee will invite presentations like “*Case studies and preservation project reviews are of great interest, and we encourage joint presentations between agencies/owners and consultants, manufacturers, academia, or contractors. However, any presentation serving the bridge preservation community will be considered by the steering committee*”

c.) Even if you can’t join the meeting, please send along any input you might have.
Email to Sarah Wilson and Nancy Huether.

3. 2023 Bridge Maintenance Related Meetings – Travel Scholarships – Vote on approval.

a.) TSP-2 Partnership Meetings

i. WBPP, March 14-16, Albuquerque NM **Interest? Drew Storey**

ii. SEBPP, April 4-6, Atlanta GA **Interest? Mike Brokaw**

iii. NEBPP, August 22-24, Wilmington DE **Jason D. would like to attend.**

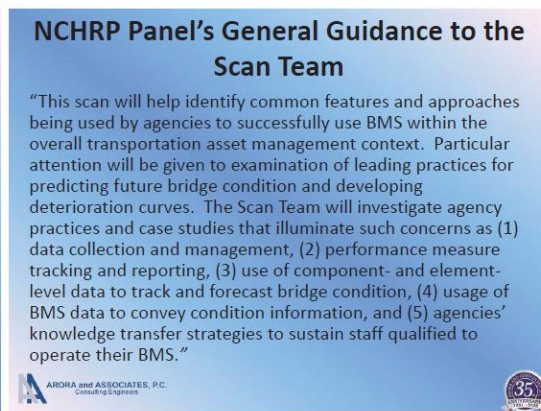
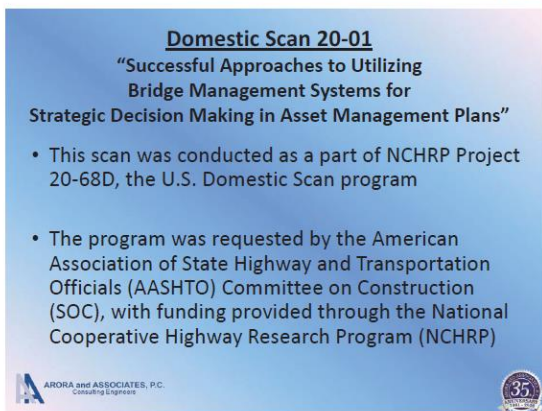
Drew motioned to approve names and locations above. Mike B seconds.

b.) COBS, May 22-25, 2023 – Kansas City, Missouri. **Sarah W. would like to attend.**

c.) MaC Meeting, July 2023 Normally Chair & Past Chair attend **Sarah W & Sarah S.**

1:00 pm – Technical Session.

- 1. Roll Call (taken automatically and displayed at the end)**
- 2. Approval of Minutes**
 - a.) December 6, 2023**
 - b.) December meeting minutes approved: Drew S, Sara Sondag**
- 3. Basak Bektas to present an overview of the Scan 20-01 findings and recommendations - Successful Approaches to Utilizing Bridge Management Systems (BMS) for Strategic Decision Making in Asset Management Plans:** Explored how agencies effectively integrated BMS data into their transportation asset-management plans (TAMP) to preserve and improve the condition of the assets and the performance of their system.
 - a.) Presentation Recorded**
 - b.) Slides Provided**
 - c.) Links:**
 - i. [U.S. Domestic Scan Program](#)**
 - ii. [SCAN20-01.pdf \(trb.org\)](#)**
 - iii. <http://144.171.11.40/cmsfeed/TRBNetProjectDisplay.asp?ProjectID=1570>**



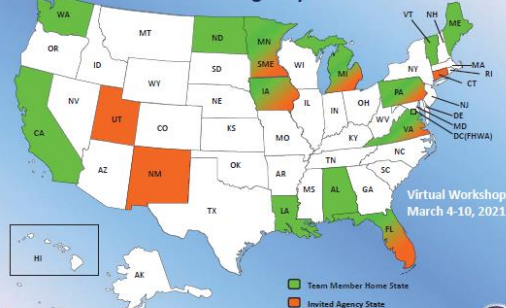
NCHRP Panel's General Guidance to the Scan Team (Cont.)

“By documenting and sharing successful practices the scan team will produce a valuable resource for use by agencies in effectively integrating BMS data into their TAMP to successfully improve or preserve the condition of the assets and the performance of their system. The audiences for this information would include AASHTO Committee on Performance-Based Management, Committee on Bridges and Structures, asset management and bridge preservation staff within state, local or other transportation agencies.”

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Scan 20-01 Team Members Home States and Invited Agency States



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Scan Team

Chad A. Allen, P.E. – Team Chair
Asset & Performance Manager
City of Seattle DOT

Kevin Marshall
Vermont Agency of Transportation

Richard W. Runyon, P.E., Section Chief
Pennsylvania DOT

John L. Hibbard, P.E., Operations Division Director
Georgia DOT

Chester Kolota, P.E., Bridge Management Engineer
Maine DOT

Paul Vaught, Bridge Design Section
Louisiana DOTD

Edward H. Austin, P.E.
Assistant Chief Engineer, Policy and Planning
Alabama DOT

C. Todd Springer, P.E., Program Manager
Bridge Maintenance and Management Program Area
Virginia DOT

Felix Padilla

State Bridge Inspection Engineer, Structure Operation Section
Florida DOT

Scott Neubauer, P.E.,
Bridge Maintenance and Inspection Engineer
Iowa DOT

Rebecca Curtis, Bridge Management Engineer
Michigan DOT

Edward Lutgen
State Bridge Construction and Maintenance Engineer
Minnesota DOT

Mike Johnson, State Asset Management Engineer
California Department of Transportation

DeWayne Wilson, P.E., Bridge Asset Management Engineer
Washington State DOT

Derek Costabile, Bridge Management Engineer
FHWA - Office of Bridges & Structures

Bajak Bektaj, Ph.D. – SME
Assistant Professor of Civil Engineering
Minnesota State University, Mankato

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Findings by Focus Area



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Data Collection and Management

- Custom inspection tools and databases.
- Established QC& QA processes but room for improvement.
- Development and use of data, models and tools led to identification of needs, such as collection of bridge preservation work data and additional data attributes.
- Great uses of GIS such as partially viewing risks.
- Identifying and collecting data attributes for risk is an area for improvement.

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Use of Component- and Element-Level Data to Track and Forecast Bridge Condition

- Component-level data (G/F/P) is mostly used, element-level data use is limited.
- Good/Fair/Poor does not cover all bridge conditions, use of SEVERE.
- Use of decimal GCRs for analysis and accounting for time within a GCR.
- Need: deterioration curves that factor variability in condition, age, environment or other significant variables.
- Element condition data to track condition and program maintenance needs.
- National need: Correlating element condition to GCRs with improved accuracy.

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Performance Measure Tracking and Reporting

- Custom performance measures, which are mostly condition driven.
- Dashboards-visibility of information increases chances of increased/sustained funding.
- Long-term reporting of performance measures and analysis results inform long-term financial investment needs.
- There is a national need to better identify, quantify and combine risks into performance measures and integrate risk into overall asset management process.
- There is a need to better understand and model how much to invest in pavements versus bridges.
- Managing to a bridge health index may inform preservation decisions better, custom but few uses of Bridge Health Index.

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Use of BMS Data to Convey Condition Information

- Using GIS for supporting cross-asset project decisions or improved corridor management.
- Great charts/visuals that communicate both condition and change in condition trends (e.g., Michigan DOT Cycle of Life).
- Some agencies had great success in communicating with decision makers using BMS scenario analyses. They were able to make a case for increased funding and inform decision makers of future needs.

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Agencies' Knowledge Transfer Strategies

- Hiring and sustaining qualified staff to operate BMSs is a shared challenge for all agencies.
- Commitment from upper management is needed to support strategies such as double filling (the person who is ready to retire trains the incoming person for a while), which will improve knowledge transfer.
- Agencies need time and opportunities for training and exploring BMSs, which are complex tools and require a learning curve.
- Documentation is key for knowledge transfer. Bridge management manuals and decision trees were great examples of documentation. However, documentation is not a top priority when agencies are understaffed.

Insights from Asset Management Practitioners

- BMS are not utilized to address the CFR 667 requirements directly.
- Establishment of funding levels for bridges and pavement: the TAMP, BMS analysis, a combination of both or other analysis?

The process varied and while BMS analysis informed the funding levels for some agencies, analysis outputs were utilized rather to inform future investment direction.

Insights from Asset Management Practitioners

- Asset management contacts from Connecticut, Iowa, Minnesota, New Mexico and Utah responded.
- Information for setting performance management targets (PM2), TAMP life cycle planning requirements and TAMP investment scenarios are typically provided from the bridge management staff.
- BMS are used in various ways to gather or analyze agency data to provide these inputs, particularly to investigate the impact of alternative funding scenarios on the bridge network over time.
- TAMP risk management is typically not directly linked to BMS and falls under the agency asset management umbrella with exceptions.

Insights from Asset Management Practitioners

- TAMP has influenced their bridge programs for the better.
 - Realization for needs, such as increased staffing and data-driven decision making, improving data quality, a shift to proactive AM approach instead of worst-first

Insights from Asset Management Practitioners

- Communications and any beneficial connections between the TAMP and BMS efforts?
 - Committees, groups with representation for improved communication and implementation.
 - Room for improvement.
- Does BMS inform treatment level investments?
 - BMS influences these decisions for a few agencies but typically the connection is missing.

Recommendations

- State and national bridge, pavement and asset management groups should coordinate and form task forces with shared membership or meet regularly to produce a roadmap to improve the use of BMS in asset management decision making and better coordination of BMS use within asset management.
- Agencies need to have a strategic vision and process to guide BMS and incorporate BMS information into overall asset management. Agencies that coordinate at a strategic level have better success.
- Executives should support hiring qualified staff, strategies to maintain agency knowledge, and research to support BMS implementation.

Insights from Asset Management Practitioners

- How does the AM team work with the BMS owners and the bridge asset owners to develop a performance-based planning and programming (life cycle planning) approach?
 - This appears to be an area that most agencies are trying to improve upon.

Recommendations

- Agencies should start exploring element condition data to identify, track and model bridge work.
- Data on cost and impact of bridge work needs to be systematically documented.
- Agencies should consider long-term analysis and scenario planning to inform long-term financial planning and improved communication with elected officials.
- Future data needs should be discussed and planned based on the recent TAMP development experience. Agencies should identify additional data needs that can be used to improve BMS modeling framework or consider refinement if data items are no longer helping with bridge management decision making.

Recommendations

- National and state research is needed on a variety of topics to improve BMS modeling. Main research topics are deterioration modeling, cost modeling, life cycle cost modeling, element to GCR conversion, developing element-based performance measures/health indices, risk modeling, developing alternative performance measures to better facilitate cross-asset resource allocation.
- Quality data is needed for good decision-making. Agencies should consider adapting good practices of QC and QA or add to existing practice.
- Asset and bridge management professionals need closer coordination and stronger collaboration to communicate a unified risk and performance-based message to secure funding to ensure future sustainability.
- There is a future opportunity for asset and bridge teams to perform internal cross-training to promote understanding, reduce silos, and enhance communications and knowledge transfer.



Questions?



You can find the scan report below:

[SCAN20-01.pdf \(trb.org\)](#)

**Further information on this scan and the
NCHRP 20-68D U.S. Domestic Scan program
is available at:**

<http://144.171.11.40/cmsfeed/TRBNetProjectDisplay.asp?ProjectID=1570>

Or

<http://www.domesticscan.org/>



Chat Log C:\Users\Nancy Huether\OneDrive - Michigan State University\Documents\ChatLog MWBPP Monthly Meeting 2023_01_03 13_49.rtf

Nancy Huether (to Everyone): 12:38 PM: Jason is out till the 4th

Sarah Wilson (to Everyone): 12:41 PM: Poll for At Large Director - please respond by 2 pm Central today

https://forms.office.com/Pages/ResponsePage.aspx?id=nwgia7qOPEaE9TFxlQ-QBQ_2q8--k1NJiUMxg5jK0IFUQUJPQU0wUzdTUU5LNEhXVkrUT1RURDhPVS4u

Bobby Scarpitto (to Everyone): 1:03 PM: I don't see anything to vote

Drew Storey (to Everyone): 1:03 PM: Poll for At Large Director - please respond by 2 pm Central today

https://forms.office.com/Pages/ResponsePage.aspx?id=nwgia7qOPEaE9TFxlQ-QBQ_2q8--k1NJiUMxg5jK0IFUQUJPQU0wUzdTUU5LNEhXVkrUT1RURDhPVS4u

Drew Storey (to Everyone): 1:06 PM: Will Basak's presentation be recorded today?

Nancy Huether (to Everyone): 1:10 PM: Link to Bridge Paint Cost Analysis Tool I mentioned

<https://tsp2bridge.pavementpreservation.org/files/2013/05/2021-04-06%20Cost%20Analysis.xlsx>

Miller, Kent (to Everyone): 1:41 PM:

<https://onlinepubs.trb.org/onlinepubs/nchrp/docs/SCAN20-01.pdf>

Miller, Kent (to Everyone): 1:43 PM: Basak, Is there a plan to do a follow-up for this BMS scan in a few years?

Basak Bektas (to Everyone): 1:45 PM: @Kent, not at this time but there would be a lot of value in that

Richard Dunne (to Everyone): 1:46 PM: Happy new Year All!!

4. Monthly Meeting Topics / Panel Discussions? Below are some thoughts I took away from the SEBPP meeting –

- LADOTD's comments concerning Secession Planning for their agency, and their intentional cross training of their staff. This might be a good panel discussion on what makes a good secession plan, and have any states done anything with it. **Mike B.**
- The Concrete Bridge Engineering Institute in Austin Tx, and the S-BRITE Center at Purdue in Indiana, are both pooled fund research and training facilities – singly or as a two part presentation, they make a good presentation. **Joe S.**
- Major Bridge Preservation Initiatives – what is your state doing for the larger bridges, anything special? Definition of Larger bridges, and specific maintenance or design details being used?
- Tunnels and/or Ancillary Structures – do you inventory or inspect any of them? If so, what procedures, intervals, etc do you use? (This could also be a topic for the Inspection Group.)
- Have we had any UHPC presentations? If not, there is a FHWA initiative, and some states are starting – in 2023 Illinois will do a link slab joint elimination, and steel beam end repairs with UHPC. **Joe S.**
- Others?
 - **Bridge Coatings Presentation**
 - **National working group**
 - **Dormant for 1.5 yrs, Jeff P chair retired from FDOT.**
 - **Tool on the TSP2 website – costs to help DOT's**

MWBPP Monthly Meeting Attendees				
Summary				
Meeting Date	Meeting Duration	Number of Attendees	Meeting ID	
January 3, 2023 12:16 PM CST	92 minutes	60	777-203-541	
Details				
Name	Email Address	Join Time	Leave Time	Time in Session (minutes)
+12024933143		1:02 PM	1:46 PM	44
+14149304554		1:00 PM	1:21 PM	20
+17852964448		12:57 PM	1:47 PM	50
A Jones		1:00 PM	1:46 PM	45
Aaron Kober		12:31 PM	1:47 PM	75
Adam Post	apost@indot.in.gov	1:00 PM	1:46 PM	46
Allen Scarborough (CMC)	allen.scarborough@cmc.com	1:01 PM	1:46 PM	44
Andrew Lawver, MnDOT District 7 Bridge		1:10 PM	1:47 PM	37
Andrew I		1:06 PM	1:49 PM	42
Anthony Stakston		1:02 PM	1:22 PM	20
Barritt Lovelace	blovelace@collinsengr.com	1:03 PM	1:46 PM	43
Basak Bektas		1:05 PM	1:46 PM	40
Bill Oliva		1:10 PM	1:47 PM	37
Bobby Scarpitto	bobby@kwikbondpolymers.com	12:56 PM	1:49 PM	52
Bradley Noll	Bradley.noll@dot.ohio.gov	12:44 PM	1:47 PM	63
Brian Johnson		12:55 PM	12:57 PM	1
Brian Johnson		12:57 PM	1:49 PM	51
Darlene Lane	ncpp@msu.edu	12:44 PM	1:49 PM	64
Dave Juntunen		1:10 PM	1:49 PM	39
David Coley	david.coley@state.sd.us	1:00 PM	1:46 PM	46
Davidson, Katrina		1:08 PM	1:28 PM	19
Derrick Castle	Derrick.Castle@sherwin.com	1:00 PM	1:46 PM	46

Dora Alexander		1:01 PM	1:01 PM	0
Dora Alexander		1:02 PM	1:48 PM	45
Drew Garceau (Collins Engineers)	dgarceau@collinsengr.com	1:21 PM	1:49 PM	27
Drew Storey		12:30 PM	1:46 PM	75
Dustin Vaughan	dvaughan@odot.org	1:44 PM	1:48 PM	4
Fouad Jaber	fouad.jaber@nebraska.gov	1:11 PM	1:23 PM	11
Gregg Freeman	Gregg@kwikbondpolymers.com	1:00 PM	1:46 PM	46
Ida Narbuvoll		1:02 PM	1:46 PM	44
James Leaden	Jim.Leaden@ks.gov	12:56 PM	1:48 PM	51
Jared Backs		1:01 PM	1:49 PM	47
Jerry Goodman	Jerry.Goodman@modot.mo.gov	12:56 PM	1:46 PM	49
Joe Stanisz		12:27 PM	1:46 PM	79
John Culbertson [KDOT]		12:58 PM	1:00 PM	2
John Culbertson [KDOT]		1:01 PM	1:46 PM	45
Jonathan Sirianni	jsirianni@aashto.org	1:13 PM	1:46 PM	33
Kevin Kriete	kevin.kriete@hdrinc.com	1:08 PM	1:46 PM	38
Lawrence Kirchner	llkirchner@transystems.com	1:10 PM	1:27 PM	17
Lorella Angelini		12:58 PM	1:47 PM	48
Mark Hudson	mark.hudson@sherwin.com	1:02 PM	1:46 PM	44
Matthew Keilson		1:00 PM	1:46 PM	46
Matthew Kurle	mkurle@nd.gov	1:00 PM	1:46 PM	46
Mike Brokaw, Ohio DOT		12:36 PM	1:49 PM	72
Miller, Kent		1:02 PM	1:46 PM	44
Nancy Huether	ncpp@msu.edu	12:16 PM	1:49 PM	92
Nick Graziani	nicholas.graziani@watsonbowmanacme.com	12:31 PM	1:46 PM	74
Patrick Martens	patrickmartens161@gmail.com	12:59 PM	1:46 PM	47
Philip Meinel	philip.meinel@dot.wi.gov	1:09 PM	1:46 PM	37
Raj Ailaney		1:01 PM	1:46 PM	45
Richard Dunne		1:02 PM	1:46 PM	43
Ryan Bowers		12:59 PM	1:49 PM	49
Sarah Sondag - MnDOT	sarah.sondag@state.mn.us	1:00 PM	1:48 PM	48
Sarah Wilson	sarah.wilson@illinois.gov	12:21 PM	1:48 PM	86

Scott Fowler		12:59 PM	1:49 PM	49
Scott Neubauer	scott.neubauer@iowadot.us	12:58 PM	1:46 PM	48
Scott Stotlemeyer	scott.stotlemeyer@dot.gov	1:00 PM	1:46 PM	46
Todd Miller		12:59 PM	1:49 PM	49
Todd Shields (NCP)		12:24 PM	1:19 PM	55
Todd Thompson	todd.thompson@state.sd.us	1:01 PM	1:46 PM	45
Tom Collins		1:01 PM	1:33 PM	31
Walt Peters	WPETERS@ODOT.ORG	12:59 PM	1:46 PM	47
paul jensen	pauljensenllc@gmail.com	12:56 PM	1:46 PM	50

Adjourn 1:46PM CST